



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/556,852	04/21/2000	Charles A. Lieder	013129/00025	6369

7590 09/10/2004

Locke Liddell & Sapp LLP  
IP Docket Clerk  
600 Travis Street  
3400 Chase Tower  
Houston, TX 77002

EXAMINER
----------

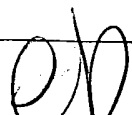
TOOMER, CEPHIA D

ART UNIT	PAPER NUMBER
----------	--------------

1714

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/556,852	<b>Applicant(s)</b> LIEDER ET AL.	
	<b>Examiner</b> Cephia D. Toomer	<b>Art Unit</b> 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office action is in response to the Appeal Brief filed June 7, 2004. The finality of the prior office action is withdrawn. The rejection of the claims under 35 USC 103(a) as being unpatentable over Niebylski (US 4,317,657) in view of Cunningham (US 5,551,957 and 5,679,116) and the 103 (a) rejection over Malfer in view of Jessup are withdrawn in view of Applicant's arguments.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-10, 13-18 and 21-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Jarvis (US 5,679,117).

Jarvis teaches a process of producing high-octane hydrocarbons wherein a mixture of ethanol and butane, natural gasoline or low octane gasoline is taken through a series of process steps (see abstract). Jarvis teaches that the final liquid product possesses a RON of 120-160, MON of 110-129 and R+M/2 of 148. The final product contains 42.75% ethanol and <0.1% MTBE (see col. 5, lines 3-17). To produce the final high octane gasoline Jarvis adds 20% of the final liquid product to 80 octane gasoline and the resulting mixture is 92.8 octane with a vapor pressure in the range of 4 to 19 psi (see col. 5, lines 25-28). When Jarvis takes the mixture of 1/3 ethanol and 2/4 natural gasoline through his process, the resulting product is substantially one half natural

Art Unit: 1714

gasoline and one half ethanol, wherein the vapor pressure of the product is 1.5-8 psi and the octane rating is 108 to 160. Jarvis discusses other examples wherein his final product contains ethanol and has a vapor pressure of 6 to 8 psi (see col. 6, lines 1-28).

While Jarvis does not specifically discuss that his final composition reduces toxic air pollutants emissions, he would inherently meet this limitations because he teaches the same fuel composition as Applicant.

Accordingly, Jarvis teaching all the limitations of the claims, anticipates the claims.

3. Claims 1, 4-10, 13-18 and 21-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Paul (US 5,697,987).

Paul teaches a fuel composition comprising hydrocarbons and fuel grade alcohol in amounts selected to provide a motor fuel composition with a minimum anti-knock index of 87 and a maximum DVPE (dry vapor pressure equivalent) of 15 psi. In the summer the maximum DVPE is 7.2 psi (see abstract; col. 7, lines 36-45). Paul teaches a general range for the DVPE as between about 3.5 and about 15 psi (col. 6, lines 58-62). The fuel composition contains hydrocarbons in an amount of about 10 to about 50 vol% and ethanol in an amount of about 25 to 55 vol% (see col. 7, lines 50-65) Paul teaches in claims 8 and 9 that the fuel may have an anti-knock index of 89 or 92.5.

While Paul does not specifically discuss that his composition reduces toxic air pollutants emissions by the claimed percentages, he would inherently meet this

Art Unit: 1714

limitations because he teaches the same fuel composition as Applicant and he teaches that his fuel compositions are clean burning (see col. 4, lines 26-29).

Accordingly, Paul teaching all the limitations of the claims, anticipates the claims.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-3, 11-12 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul (US 5,697,987).

Paul has been discussed above. Paul fails to teach the specific 50% and 10% distillation points of the fuel. However, no unobviousness is seen in this difference because Paul teaches fuel compositions that possess a DVPE of 3.5-15 and he exemplifies compositions wherein the DVPE is 8.1 and 8.05 and the 50% distillation points are within Applicant's range and the 10% distillation points are close to Applicant's 10% distillation point range. Given this data, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the components through routine experimentation to obtain the claimed distillation points. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results that properly rebuts the *prima facie*

Art Unit: 1714

case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

6. Applicant's arguments filed have been fully considered but they are not persuasive.

Applicant argues that Jarvis fails to disclose a blend of gasoline and oxygenate but instead discloses a reaction product.

Jarvis does teach that the fuel product is obtained by following several reaction steps. However, Jarvis teaches that the reaction product does contain a substantial amount of alcohol, namely ethanol. Jarvis takes the product containing the alcohol and blends it with gasoline.

Applicant argues that, absent a chemical reaction, it would not be possible for the products of Jarvis to exhibit a RVP of less than 7.1.

The examiner is not disputing that Jarvis's product is formed by a chemical reaction. However, as disclosed in various paragraphs in Jarvis, the product does contain alcohol (see col. 5, lines 5-17, 65-66) and the product containing the alcohol is blended with a gasoline.

At col. 6, lines 5-14, Jarvis teaches that the product contains 5-50% ethanol, 50-90% gasoline. Jarvis teaches that ethanol may be removed from the product. Clearly this product contains alcohol and the product combined with the gasoline equals a gasoline-oxygenate blend suitable for combustion in automotive engines.

Art Unit: 1714

Applicant argues that Jarvis is silent with respect to the need for reducing toxic acid pollutants emissions.

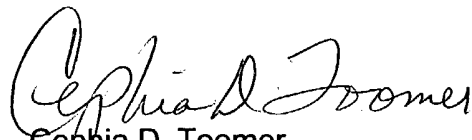
While Jarvis does not specifically discuss that his final composition reduces toxic air pollutants emissions, he would inherently meet this limitations because he teaches the same fuel composition as Applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cephia D. Toomer  
Primary Examiner  
Art Unit 1714

09556852\090704